## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A Stirling cycle engine comprising:

a case having a cylindrical shape;

a cylinder made from metal, said cylinder being coaxially inserted into said casing;

a displacer slidably inserted into an ~~the~~ inside of said cylinder adjacent to a distal end thereof;

a piston slidably inserted into the inside of said cylinder adjacent to a proximal end thereof;

a driving mechanism for reciprocating said piston, said driving mechanism being provided around an outer periphery of said cylinder adjacent to the proximal end thereof;

a plurality of mounts for fixing said cylinder within said casing and supporting said driving mechanism, said plurality of mounts being provided on the ~~an~~ outer periphery of said cylinder between the proximal and the distal ends thereof;

a first flat spring having a center portion thereof connected to said piston; and

a plurality of connecting arms, ~~one~~ first ends thereof being connected to one of said mounts and the other ends thereof being attached to said first flat spring;

wherein said cylinder, said plurality of mounts and said plurality of connecting arms are integrally formed into a single piece by casting ~~with one another~~.

2. (Currently amended) The Stirling cycle engine according to claim 1, wherein said plurality of connecting arms have ~~has~~ reinforcing ribs ~~respectively~~.

3. (Currently amended) The Stirling cycle engine according to claim 1, further comprising:

a plurality of spacers attached to the other ends of said connecting arms ~~respectively~~;

a rod, one end thereof being connected to said displacer; and

a second flat spring having a center portion thereof connected to the other end of said rod;

wherein a peripheral portion of said first flat spring is sandwiched and supported between the other ends of said plurality of connecting arms and ~~one~~ first ends of said spacers, while a peripheral portion of said second flat spring is attached to the other ends of said spacers.

4. (Currently amended) The Stirling cycle engine according to claim 3, wherein either the other ends of said plurality of connecting arms or ~~one~~ the first ends of said spacers have screws, and the others have internal threads fitting to said screws.

5. (Currently amended) The Stirling cycle engine according to claim 2, wherein said cylinder, said plurality of mounts and said plurality of connecting arms ~~integrated one another~~ are made from an aluminum bulk.

6. (Currently amended) The Stirling cycle engine according to claim 5, wherein said cylinder, said plurality of mounts and said plurality of connecting arms ~~integrated one another~~ are formed by die casting.

7. (Currently Amended) A Stirling cycle engine comprising:

a cylinder for slidably inserting a piston and a displacer;

a casing accommodating said cylinder, said casing having a cylindrical portion being communicated with said cylinder, said cylindrical portion allowing said displacer to freely slide therein;

a plurality of mounts for fixing said cylinder within said casing and supporting a driving mechanism, said driving mechanism forcing said piston to reciprocate;

a plurality of flat springs having center portions thereof connected to said piston and said displacer via a connection means; and

a plurality of connecting arms, ~~one~~ first ends thereof being fixed to one of said plurality of mounts and the other ends thereof being connected to peripheral portions of said plurality of flat springs, wherein

said cylinder, said plurality of mounts and said plurality of connecting arms are integrally formed into a single piece by casting ~~with one another~~.

8. (Currently amended) The Stirling cycle engine according to claim 7, wherein:

said plurality of flat springs comprise a first flat spring and a second flat spring;

the other ends of said plurality of connecting arms have spacers ~~respectively~~, said spacers having ~~one~~ first ends and ~~the~~ other ends and ~~being~~ are attachable to the other ends of said plurality of connecting arms;

peripheral portions of said first flat springs are sandwiched and supported between the other ends of said plurality of connecting arms and ~~one~~ the first ends of said respective spacers; and

peripheral portions of said second flat springs are attached to the other ends of said spacers.

9. (Currently amended) The Stirling cycle engine according to claim 8, wherein:

surfaces of the other ends of said plurality of connecting arms comprise a plane intersecting the axis of said cylinder at a right angle; and

said first and second flat springs intersect the axis of said cylinder at a right angle in order to absorb a force while equally distributing the force on one surface thereof entirely, the force being generated by reciprocating motions of said piston and said displacer.

10. (Original) The Stirling cycle engine according to claim 8, wherein said spacers have hexagonal pillar shapes.

11. (Currently amended) A Stirling cycle engine comprising:

a casing having a cylindrical shape;

a cylinder made from metal ~~for slidably inserting a displacer and a piston into a part adjacent to one end and another part adjacent to an other end thereof respectively~~, said cylinder being coaxially inserted into ~~placed inside~~ said casing;

a displacer slidable inserted into the inside of said cylinder adjacent to a distal end thereof;

a piston slidably inserted into the inside of said cylinder adjacent to a proximal end thereof;

a driving mechanism for reciprocating said piston, said driving mechanism being provided around an outer periphery ~~peripheral surface~~ of said cylinder adjacent to the proximal end thereof~~, said driving mechanism forcing said piston to reciprocate inside said cylinder~~;

a plurality of mounts for fixing ~~said driving mechanism to the outer peripheral surface of~~ said cylinder within said casing and supporting said driving mechanism, said plurality of mounts being provided on the outer periphery of said cylinder between the proximal and the distal ends thereof ~~integrally formed with said cylinder~~;

a flat spring having a center portion thereof connected to said piston; and

a plurality of connecting arms, ~~one~~ first ends thereof being connected to one of said mounts ~~integrally formed with said mount~~ and the other ends thereof being ~~attached~~ connected to ~~a peripheral portion of~~ said flat spring, wherein:

said cylinder, said plurality of mounts and said plurality of connecting arms are integrally formed in a single piece; and

said driving mechanism is formed in a shape so as to avoid a contact with said plurality of connecting arms.